

LAWRENCE LIVERMORE NATIONAL LABORATORY



The Lawrence Livermore National Laboratory (LLNL) prides itself on its numerous educational programs and partnerships to help train the next generation of scientists and engineers. This commitment is particularly important due to the lack of qualified science and math teachers in our public schools, a situation that is recognized as a state and national crisis. As a Laboratory employee, you may be interested in leveraging your special skills and knowledge to benefit our local K-12 schools. This flyer describes various opportunities for you to contribute. Contact names and web links are provided for additional information. Employees are responsible for obtaining their supervisors' approval if participating in an educational outreach event during their normal work schedule. For general questions or suggestions, contact Ann Willoughby in the Public Affairs Office, 423-4234. Working with young people to encourage science, engineering and math learning is fun and rewarding. Please consider participating in one or more of these valuable programs that benefit our local communities.



Science fair judging



Fun with Science demo

Fun with Science (FWS)

The Lab's mobile FWS van travels to elementary and middle schools and other public venues throughout the Bay Area and San Joaquin Valley to generate student interest in science through fun and interesting physical science demonstrations. The FWS van goes out twice a week and usually requires a full day commitment. An account number is provided for time charges. Contact Richard Farnsworth, 422-5059. (<http://education.llnl.gov/fws/>)

Super Science Field Trips

The Laboratory offers a field trip program for local fifth grade classes Monday through Friday mornings. A single class comes to the Lab's Discovery Center and participates in a two-hour interactive Fun with Science presentation that demonstrates concepts in chemistry, physics and environmental science. Volunteers are needed as FWS presenters. Contact Ann Willoughby, 423-4234. (http://www.llnl.gov/pao/com/school_tours.html)



EYH Conference



Got Science?



MATHCOUNTS coach



Teacher symposium

Tri-Valley Science & Engineering Fair (TVSEF)

The Lab's annual Tri-Valley Science and Engineering Fair, held in March in Livermore, is a project competition for 7th-12th graders in the Livermore, Pleasanton, Dublin, San Ramon and Sunol school districts. The fair provides a forum for students to present their scientific work, interact with scientists and engineers and receive feedback on their efforts. Students are awarded scholarships, cash prizes and other non-monetary recognition for outstanding work. Approximately 250-300 students participate each year. More than 120 volunteer judges are needed each year to spend a day judging the students' projects. Junior sweepstakes winners go on to compete in the California State Science Fair. Senior sweepstakes winners are invited to compete in the prestigious Intel International Science and Engineering Fair held annually in May. Contact Nadine Horner, 423-9051. (<http://tvsef.llnl.gov/>)

Expanding Your Horizons (EYH) Conferences®

LLNL co-sponsors three annual EYH Conferences for middle and high school girls. EYH Conferences are part of a national program that is intended to spark girls' interest in mathematics and science through positive, hands-on workshops and career discussions with professionals. Approximately 1,500 girls attend the three conferences each year. Conferences are held in San Ramon in February, Oakland in March and Stockton in October. Men and women may volunteer as workshop leaders or career fair participants, or may help with facilities and other support. Contact Sarah Roberts, 423-4112. (<http://www.llnl.gov/eyh/>)

Got Science? Discover Science Saturday

Got Science? is a family-oriented science extravaganza sponsored annually by the Laboratory. Hands-on, interactive exhibits demonstrate various aspects of science and engineering targeting elementary and middle school age children. Between 2,000 and 3,000 people attend this half-day event. Volunteers are needed to provide and staff exhibits. Contact Nadine Horner, 423-9051.

MATHCOUNTS® for Livermore Middle Schools

Laboratory employees and retirees are having a direct impact on student math achievement in Livermore middle schools as volunteer coaches in the school district's MATHCOUNTS education program. MATHCOUNTS is a national enrichment, coaching and competition program that promotes middle school mathematics achievement through grassroots

involvement. Volunteer coaches meet with students at their school for one hour each week to help students solve math word problems. Contact Richard Farnsworth, 422-5059. (<http://education.llnl.gov/mathcounts/>)

Science on Saturday Presenter

Science on Saturday is a lecture series for middle and high school students and teachers highlighting the 'big science' conducted at LLNL. Lab scientists work with high school science teachers to develop a 60-minute presentation that provides the students with a baseline of science knowledge sufficient to understand the research discussed in the presentation. Presentation preparation is an estimated 12-hour commitment and presentations require four hours on a Saturday morning. Contact Richard Farnsworth, 422-5059. (<http://education.llnl.gov/sos/>)

Teacher Symposium Presenter

The Edward Teller Science Education Symposium provides science teachers with new teaching materials to keep their instruction and content knowledge up-to-date. These materials are based upon research occurring at LLNL. Presenters work in collaboration with science teachers to develop the science materials and present the instruction in a one-day Saturday workshop. The teachers attending the symposium tour LLNL facilities related to the workshop theme. Participation commitment varies from an hour to guide tours, several hours on a Saturday to present instruction, and several days to develop materials. Contact Richard Farnsworth, 422-5059. (<http://education.llnl.gov/etsymposium/>)

Teacher Research Academies

The University of California Davis Edward Teller Education Center (ETEC), in collaboration with LLNL, offers Teacher Research Academies for K-14 science teachers. The academies allow teachers to progress from novice to mastery in a variety of scientific disciplines, including bioinformatics, biotechnology, biophotonics, fusion-as-trophysics and energy technologies and the environment. Each of the content areas is derived from the cutting-edge science conducted at LLNL. Academies are offered during the summer at ETEC, located at LLNL, and at various satellite locations in the Central Valley. Scientist partners are needed to assist with curriculum development and instruction. Contact Carey Kopay, 422-1314. (<http://etec.ucdavis.edu/>)